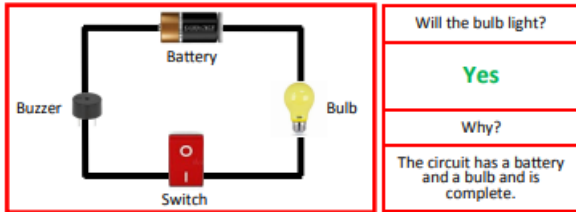


Would the bulb light up?

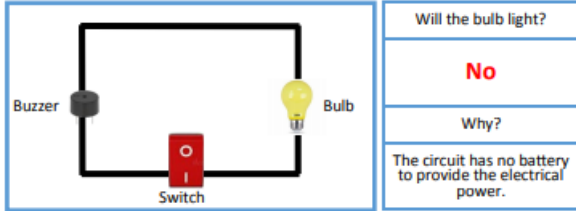


Will the bulb light?

Yes

Why?

The circuit has a battery and a bulb and is complete.

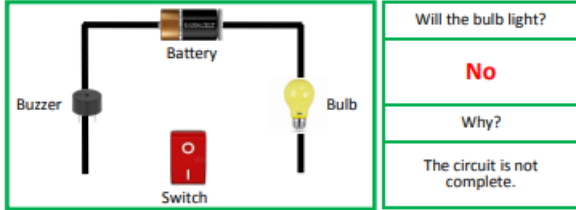


Will the bulb light?

No

Why?

The circuit has no battery to provide the electrical power.

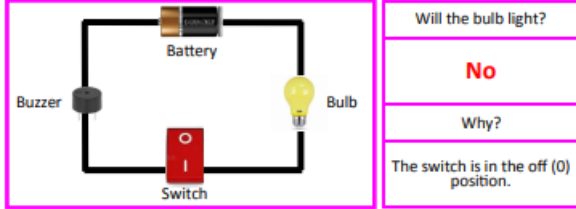


Will the bulb light?

No

Why?

The circuit is not complete.



Will the bulb light?

No

Why?

The switch is in the off (0) position.



Important facts:

What is electricity?

Created by generators, powered by gas, coal, oil, wind or solar.

Electrical energy can be converted into light, heat, movement or sound energy.

What is an electrical circuit?

Electricity flows through components in a complete circuit.

It needs a power source (battery) with wires.

Other components are: bulbs, buzzers or motors.

A switch can create a gap in the circuit to switch it on (closed) or off (open).

What is a conductor and insulator?

Conductors let electricity pass through them and metals (iron, copper, steel) are good conductors. Insulators do not allow electricity to pass through them and wood, glass, plastic and rubber are good insulators.

Key Vocabulary

light, movement, sound, energy, complete, bright, machine, heat, through, metal, iron, copper, steel, power

generator = a machine that makes electrical energy

current = the flow of electrical charge

component = needs electricity to work (e.g. a part of a circuit)

connected = something that is joined or linked

circuit = a path through which an electric current flows

battery (cell) = stores and provides energy

wire = thin strips of metal that conduct electricity

bulb = component that creates light

switch = component that switches circuits on and off

buzzer = component that creates sound

What we will be learning:

To understand that some common appliances run on electricity, with a focus on circuits, conductors and insulators.

- identify common appliances that run on electricity
- construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- recognise some common conductors and insulators, and associate metals with being good conductors.

